

# GENERAL AIRCRAFT RESEARCH GLIDERS

## Principal Features of "Medium V," "Medium U" and "Maximum V" Designs

TO the student of aerodynamic design one of the most absorbing exhibits at Radlett this year was the "flight" of three experimental towed gliders, all tailless, but having wings of differing plan-forms. These instruments of research have been built by General Aircraft Ltd., of Feltham, Middlesex, as part of a Ministry of Supply programme. One—known as the "medium U"—was demonstrated by Mr. R. Kronfeld, after being towed off by a Halifax.

On this page are general arrangement drawings of the three gliders. The "medium V" type has a 28.4 degree sweepback, measures 45ft 4in in span, is 19ft long and 8ft 9in high and is numbered TS507A. It is a normal glider and was described in some detail in *Flight* of September 26th, 1946. The "medium U" has the same degree of sweepback, is numbered TS510D and has rotatable wing tips. Span length and height are respectively 51ft, 21ft and 10ft. A nose flap arrangement is incorporated



In the heading picture the "medium U" is seen from the towing Halifax. A general arrangement drawing of this version also appears above.

The angle from which the "maximum V" is seen on the left gives a true impression of the sweep-back. The version, which has a span of 45ft 4in, incorporates a nose flap arrangement.



Direct comparison is afforded by the G.A. drawings of the "medium V" and "maximum V" gliders.

in the "maximum V" (TS513B), the corresponding dimensions of which are 45ft 4in, 23ft 6in and 9ft. Other data for the "medium V" are:—

Wing area (net) ..	317 sq ft
Wing area (gross) ..	350 sq ft
Aspect ratio .....	5.8
Aerofoil section ..	Raf 34 modified
Chord—root .....	11ft 4in
Chord—tip .....	43.58in
Dihedral—normal ..	0.5 deg
Flying weight with two crew + max ballast ..	4,400 lb
Max wing loading ..	12.57 lb/sq ft
Stalling speed ..	58 m.p.h. E.A.S.
Max towing speed ..	150 m.p.h. E.A.S.